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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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LAWRENCE ROSENTHAL
STROOCK & STROOCK & LAVAN LLP
180 MAIDEN LANE
NEW YORK, NY 10038

EXAMINER

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 01/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/312,073

Applicant(s)

USUI ET AL.

Examiner

Michael P Nghiem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39, 41-65, 67-73 and 83-93 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 and 24-35 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 36-39, 41, 42, 48-57, 60, 62-65, 67, 68, 73 and 87-93 is/are allowed.
- 6) ☒ Claim(s) 15-18, 21-23, 43-47, 58, 59, 61, 69-72 and 83-86 is/are rejected.
- 7) ☒ Claim(s) 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 31.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The Amendment filed on November 18, 2002 has been acknowledged.

Withdrawal of Allowability

1. The indicated allowability of claims 15-18, 21-23, 43-47, 58, 59, 61, 69-72, and 83-86 are withdrawn in view of Miyazawa et al. (US 6,250,750). Rejections based on the cited reference(s) follow.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 44, 70, 83 and 85 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 44, 70, 83, 85 lack antecedent basis, "the engaging recesses".

Claim 71, it is unclear how a plurality of recesses can engage a single projecting member.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 15-18, 21-23, 43-47, 58, 59, 61, 69-72, and 83-86 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyazawa et al. (US 6,250,750).

Miyazawa et al. discloses all the claimed limitations including:

- an ink jet printer (Fig. 11), comprising:
 - a carriage (101), said carriage having a projecting member (116, 117) and an ink supply needle (119) extending therefrom;
 - a print head (118) including a plurality of nozzles (nozzles of 118) through which ink is ejected mounted on said carriage;

- an ink cartridge (120), said ink cartridge being mounted on the carriage (Figs. 11, 12's) and, said ink cartridge comprising:

- a housing (housing of 120) having at least one wall (bottom wall of 120);
an ink supply port (opening of 10) formed on the wall of said housing at an offset position (Fig. 1);

- at least two engaging recess (recess left of 10 and 15) formed in the wall of said housing adjacent to said ink supply port (Fig. 1), said engaging recess being engageable with the projecting member of the printer (Figs. 12's) when the ink cartridge is mounted on the carriage, wherein the engaging recess and the projecting member of the printer align the ink supply port with the ink supply needle prior to insertion of the ink needle into the ink supply port (Figs. 12's), and wherein said ink cartridge has an even number of said engaging recesses (Fig. 1);

- said ink cartridge has an even number of engaging recesses (15, recess left of 10, Fig. 1);

- the position of said engaging recess is asymmetrical with respect to a center transversal line of said ink supply port (left and right recess of 10 are asymmetrical);

- said ink cartridge has an odd number of said engaging recesses (31, 15, and recess left of 10), and wherein at least two of the engaging recesses are disposed along a line (Fig. 1);

- at least two of the engaging recesses are disposed along a line (Fig. 1);

- at least one said engaging recess is rectangular in cross section (15, Fig. 1);

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- an opening (opening covered by 20, Fig. 1), said housing containing ink, a top wall (20) of said housing being constituted by a lid (Fig. 1) covering said opening of said housing (Fig. 1);

- at least one ink chamber (chamber of 1) defined by said housing and said lid (Fig. 1);

- at least one recess (15, 31) forming a space in an outer surface of said lid (Fig. 1) when the ink cartridge is packed under a vacuum condition (column 4, lines 47-51), the pressure within said space being lower than the atmospheric pressure when the ink cartridge is packed (column 4, line 51, column 9, lines 15-17), wherein said recess is isolated from an interior of the ink chamber and exposed to an exterior of the ink chamber (Fig. 1);

- a seal member (126), wherein said recess is partially covered by said seal member adhered onto the outer surface of said lid (Fig. 14);

- a portion of said seal member is removable, and said recess is disposed under the removable portion of said seal member (126 is removable);

- said recess (31) is disposed on a part of said lid which is spaced apart from said ink supply port (Fig. 1);

- plural number of said recesses (30, 31) are formed in the outer surface of said lid;

- a fine, circuitous groove (32) formed in one surface of said lid where said recess is formed (Fig. 4);

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- an air communication hole (hole of 31) formed in said lid for communicating the interior of the ink cartridge with the atmospheric air, said air communication hole being disposed in the vicinity of said recess (Fig. 1).

Allowable Subject Matter

4. Claims 36-39, 41, 42, 48-57, 60, 62-65, 67, 68, 73, and 87-93 are allowed.

5. Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons For Allowance

6. The combination as claimed wherein a plurality number of engaging recesses for engaging a plurality of projections (claims 36, 62, 92) or at least one engaging recess formed on said lid, said engaging recess being engageable with a projecting member of the printer when the ink cartridge is correctly mounted on the printer and said engaging recess being at least partially covered by a film which can be removed from the ink cartridge to create an air communication port to the atmosphere (claims 57, 87) or said recess is disposed on a part of said lid which is engageable with

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a member of the carriage when the ink cartridge is mounted on the carriage (claim 19) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takashi et al. (JP 03-150167) and Japanese Patent (01-099633) disclose an ink cartridge comprising an engaging recess for engaging a projection (Figs. 1, 3c, respectively).

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



MICHAEL NGHIEM
PRIMARY EXAMINER
Michael Nghiem

January 20, 2003